life in the immediate area of the diffuser. Please see the response to comment # 63.

Comment 90: 316(a) Thermal Discharge Variances – Continuing the 316(a) variance, which was granted to BP Whiting over 30 years ago, raises major water quality issues for Save the Dunes. Can IDEM, unequivocally, assure the public that the BP Whiting facility has not created any significant thermal impacts to the Lake Michigan ecosystem? A 316(a) demonstration must be required because of different factors in 2007 to determine how thermal impacts from this facility can be reduced.

Recommendation: Save the Dunes requests that IDEM perform a 316(a) Thermal demonstration study to reduce thermal impacts attributed to the facility's operations.

Response 90: The 316(a) thermal variance which was conducted and approved in 1975 has been renewed in all previous permits due to the lack of prior appreciable harm and the thermal discharge has not increased. Now BP is proposing to decrease their thermal discharge to the Lake. However, a condition is being included in the permit to require BP to make a demonstration for the renewal of their 316a in their next permit renewal.

Comment 91: Antidegradation – At a minimum, according to Indiana water rule 327 IAC 5-2-11.7, the Antidegradation policy must ensure the "maintenance of the level of water quality necessary to protect existing uses in the receiving water body." Additionally, this policy requires review and public comment prior to final decision, for any new or increased discharges that will result in new or increased permit limits.

Lake Michigan is an Outstanding State Resource Water (OSRW) and must be protected without degradation. We question if federal law was followed in this matter.

Save the Dunes raises the issue that BP's Antidegradation demonstration did not follow Indiana Law and rules, as they relate to the expected discharge increases from BP's crude oil processes, albeit, there will be no increases in flow. Save the Dunes challenges IDEM's interpretation of the purpose of the Antidegradation for Lake Michigan, to show that water quality will not be degraded by any of these processes.

Furthermore, matters referenced in this document (i.e. aquatic habitat destruction, potentially new habitat creation near or around the support structure of the diffuser, harmful invasive aquatic species, thermal increases, etc.), as well as invasive pathogens, and other potentially adverse conditions as a result of BP Whiting's operational processes, cause Save the Dunes and other conservative entities increased concerns. Save the Dunes will continue to urge IDEM to assess the biological impacts from the increased water discharges into Lake Michigan, as well as, the use of the diffuser.

Illustratively, one important examples of fresh water bodies' delicate ecosystems is the fragile fish populations of Lake Sturgeon. A recent Purdue University study showed an increase in the productions of sea lampreys and consequently, parasitism on Lake Sturgeon. How did IDEM consider biological impacts on Lake Michigan aquatic species? Currently save the Dunes has no knowledge that IDEM publicly circulated the

Antidegradation demonstration to other state and federal agencies or the public at large.

Unarguably, IDEM's ability to effectively enforce stringent water quality regulations is highlighted by the facts that: 1) BP's NPDES permit expired in 1995 (BP was allowed an administrative extension due to their timely application submittal); 2) BP's last 316(a) thermal discharge demonstration was conducted in 1975: and 3) the apparent inevitable approach of deadly Pathogens in Lake Michigan; not to mention the potential for fish populations to gravitate in and around the proposed discharge points of the alternative mixing zone (diffuser).

Recommendation: Save the Dunes strongly urges IDEM to adhere to the Antidegradation water quality statute that requires a demonstration of "no harm" to ensure the protection of Lake Michigan's water quality as well as the health of Northwest Indiana residents.

Response 91: The proposed limits in the NPDES permit for BP does protect the existing and designated uses of Lake Michigan. The public was notified about the increased effluent limits for ammonia and TSS by the public notice of the draft permit/public meeting. IDEM also held a public meeting to provide information and answer questions from the public regarding the draft NPDES permit and the proposed increased effluent limits for ammonia and TSS.

Lake Michigan was designated as an OSRW by the state of Indiana. The federal government does not have a stream designation equivalent to an OSRW. There is no federal law regarding OSRWs. Therefore, no federal Laws were broken.

The antidegradation rule found at 327 IAC 5-2-11.7(A)(1)(b)(iv) provides the Commissioner of IDEM with the authority to evaluate a proposed increase in the monthly average mass limits for a pollutant, when there is no increase in flow, on a case by case basis. IDEM knows that the increase in the effluent limits for ammonia and TSS will result in some degradation of the water quality of Lake Michigan. However the increase has been limited to the amount shown by BP to be necessary and this action does support important social and economic development in the area of the discharge. The antidegradation application and addendum plus the draft permit and fact sheet were sent to EPA Region V on January 9, 2007 for their review prior to sending a pre-public notice draft permit to BP. EPA has submitted a letter to IDEM expressing no objection to the draft permit as written.

The Biological assessment conducted by IDEM does identify issues of concern, but several of the concerns that you point out from that assessment are speculation based on what might happen. The bottom of Lake Michigan in that location consists of shifting sand. That means there is very little benthic aquatic life present other than bacteria and whatever swims or floats by. The possible creation of new habitat by the placement of a diffuser does not necessarily mean that bad things are going to happen to aquatic life near the diffuser. The same wastewater that has been discharging from Outfall 001 at the shore of Lake Michigan, plus some additional ammonia and TSS loadings (which will be well below the water quality based effluent limits established by the wasteload

allocation), will now be discharged at a high rate from six ports inducing rapid mixing and dispersion of the discharge. The existing discharge from Outfall 001 now lingers near the shore of lake Michigan in a cove between BP's lakefront wastewater treatment plant and the steel mill immediately East of the discharge point.

The increases in the effluent limits for ammonia and TSS plus the use of a high rate diffuser will not introduce harmful invasive aquatic species or invasive pathogens into the Lake. The thermal discharge from Outfall 002 is not being increased. In fact, the thermal discharge will be decreasing in volume. IDEM's Water Quality Standards Coordinator of the Assessment Branch of OWQ had this to say about the ammonia criterion, "Ammonia concentrations in the Great Lakes Basin are regulated using the numeric criteria based on the 1995 Great Lakes guidance. Several fish (rainbow trout, channel catfish, etc. but excluding lake sturgeons) and invert. species were included in the toxicity studies used to generate both the GLI and EPA criteria. The 1995/1999 criteria are considered to be protective of all aquatic species."

The effluent limits contained in the NPDES permit issued to BP in 1990 were not allowed to be increased to the level allowed by the federal effluent guidelines or the water quality criteria in place at that time due to the rules commonly known as anti-backsliding found in 327 IAC 5-2-10(11). Therefore the changes in the water quality criterion established by the Great Lakes Initiative in 1997 did not and will not result in any changes in the effluent limits in this permit other than for Vanadium. The 316(a) thermal variance which was conducted and approved in 1975 has been renewed in all previous permits due to the lack of prior appreciable harm and the thermal discharge has not increased. Now BP is proposing to decrease their thermal discharge to the Lake. IDEM is unaware of any approach of deadly Pathogens in Lake Michigan resulting from the discharge of wastewater from BP's lakefront wastewater treatment plant.

A rule has been written to implement the statute referenced in your recommendation (IC 13-18-4-7. The rule is found at 327 IAC 5-2-11.4(b)(7). This rule requires the Commissioner of IDEM to evaluate the mixing zone under subdivisions (2), (4) and (6) and such an evaluation shall constitute the evaluation required by IC 13-18-4-7. That is exactly what IDEM did.

Comment 92: The following comment was submitted by Shannon Sabel of West Lafayette, Indiana:

I read with disbelief the Associated Press article regarding BP's request to IDEM for a permit to add 50 percent more in ammonia pollution and 35 percent more in solid waste pollution to Lake Michigan as a result of it planned $3 billion oil refinery expansion in Whiting.

Le me get this straight: Hoosiers are being asked to allow BP to further foul its lakes and beaches so that we can continue our reckless dependence on foreign oil? This is the same BP whose record profits followed it irresponsible neglect of the Alaskan Pipeline? The same BP who says that this refinery renovations can't budget in upgrades to its waste

treatment plant?

Environmentalist warn that ammonia can be toxic to aquatic life, leading to algae blooms, die-off and oxygen depletion, E. coli can thrive on the additional solid waste.

This is exactly the type of trade-off that we can no longer allow. Possible lower gas prices (I'll believe that when I see it!) against further contamination of our water is as short-sighted as it is irrational.

Response 92: Please see the response to comment # 16.

Comment 93: The following comment was submitted by Roberta Schonemann of West Lafayette, Indiana:

I am writing to express my deep concern regarding the Associated Press article dealing with BP's request for a permit to add 50 percent more in ammonia pollution and 35 percent more in solid waste pollution to Lake Michigan as a result of its planned $3 billion oil refinery expansion in Whiting. This is the same BP whose record profits followed its irresponsible neglect of the Alaskan Pipeline and claimed that this refinery renovation can't budget in upgrades to its wastewater treatment plant.

Environmentalists warn that ammonia can be toxic to aquatic life, leading to algae blooms, die-off and oxygen depletion. E. coli can thrive on the additional solid waste. To opt for possible lower gas prices against further contamination of our water is counter the long range interests of Hoosiers and Indiana. I appeal to you to protect our water and our health. Please do not issue this permit.

Response 93: Please see the response to comment # 16.

Comment 94: The following comment was submitted by Tracey Johnson of West Lafayette, Indiana:

I am writing to encourage you to deny British Petroleum's request to increase the allotted amount of ammonia and solid waste that they can release into Lake Michigan. If they want to expand their refinery in Whiting, they should also expand their ability to treat the waste that comes out of that plant.

Lake Michigan has been slowly recovering after years of abuse. This approval would be a setback to that recovery. Frankly we do not need more oil refining. We need better energy alternatives that will help us improve our environment and make the Great Lakes healthier.

Moreover, right now, BP is showing record profits. Surely, they can invest more to upgrade their wastewater treatment plant. Please deny this request.

Response 94: Please see the response to comment # 16.

Comment 95: The following comment was submitted by Mr. Richard Johnson, Professor of English at Purdue University in West Lafayette, Indiana:

Comment # 95 is identical to comment # 94.

Response 95: Please see the response to comment # 16.

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PUBLIC NOTICE NO. 2007 – 6G - F

DATE OF NOTICE: JUNE 21, 2007

The Office of Water Quality issues the following NPDES FINAL PERMIT.

MAJOR – RENEWAL

BP PRODUCTS NORTH AMERICA, Permit No. IN0000108, LAKE COUNTY, 2815 Indianapolis Blvd, Whiting, IN. This industrial facility discharges 141 million gallons per day of process cooling wastewater, and stormwater into Lake Michigan and the Lake George Branch of the Indiana Harbor Ship Canal. Permit Writer: Steve Roush at 317/233-5747.

APPEAL PROCEDURES FOR FINAL PERMITS

The Final Permit is available for review & copies at IDEM, Indiana Government Center, North Bldg, 100 N Senate Ave, Indianapolis, IN, Rm 1203, Office of Water Quality/NPDES Permit Section, from 9 – 4, M - F (copies 10¢ per page). The Final Permit is also available at the local County Health Department. Please tell others you think would be interested in this matter. For information about your rights and responsibilities pertaining to the Public Notice process and timeframes, please refer to the following IDEM websites:http://www.in.gov/idem/water//public_notice/index.html and http://www.in.gov/idem/guides/publicparticipation/permits/index.html.

Appeal Procedure: Any person affected by the issuance of the Final Permit may appeal by filing a Petition for Administrative Review with the Office of Environmental Adjudication **within** eighteen (18) days of the date of this Public Notice. Any appeal request must be filed in accordance with IC 4-21.5-3-7 and must include facts demonstrating that the party requesting appeal is the applicant; a person aggrieved or adversely affected or is otherwise entitled to review by law.
Timely filing: The Petition for Administrative Review must be received by the Office of Environmental Adjudication (OEA) **within** 18 days of the date of this Public Notice; either by U.S. Mail postmark or by private carrier with dated receipt. This Petition for Administrative Review represents a request for an Adjudicatory Hearing, therefore must:

- state the name and address of the person making the request;
- identify the interest of the person making the request;
- identify any persons represented by the person making the request;
- state specifically the reasons for the request;
- state specifically the issues proposed for consideration at the hearing;
- identify the Final Permit Rule terms and conditions which, in the judgment of the person making the request, would be appropriate to satisfy the requirements of the law governing this NPDES Permit rule.

If the person filing the Petition for Administrative Review desires any part of the NPDES Final Permit Rule to be stayed pending the outcome of the appeal, a Petition for Stay must be included in the appeal request, identifying those parts to be stayed. Both Petitions shall be mailed or delivered to the address here:
Phone: 317/232-8591.

Environmental Law Judge
Office of Environmental Adjudication
IGC – North Building- Rm 1049
100 N. Senate Avenue
Indianapolis IN 46204

Stay Time frame: If the Petition (s) is filed **within** eighteen (18) days of the mailing of this Public Notice, the effective date of any part of the permit, within the scope of the Petition for Stay is suspended for fifteen (15) days. The Permit will become effective again upon expiration of the fifteen (15) days, unless or until an Environmental Law Judge stays the permit action in whole or in part.

Hearing Notification: Pursuant to Indiana Code, when a written request is submitted, the OEA will provide the petitioner or any person wanting notification, with the Notice of pre-hearing conferences, preliminary hearings, hearing stays or orders disposing of the Petition for Administrative Review. Petition for Administrative Review must be filed in compliance with the procedures and time frames outlined above. Procedural or scheduling questions should be directed to the OEA at the phone listed above.

e. Post-TRE Biomonitoring Requirements (Only Required After Completion of a TRE)

After the TRE, the permittee shall conduct monthly toxicity tests with the species designated in paragraph 1.b. for a period of three months. Should three consecutive monthly tests demonstrate no toxicity, the permittee may conduct chronic tests every six months for the duration of the permit.

If toxicity is demonstrated, as defined in paragraph 1.f.(2) or 1.f.(3) above, after the initial three month period, testing must revert to a TRE as in Part 2 of this section (TRE). These tests shall be conducted in accordance with the procedures under the Whole Effluent Toxicity Testing Section above.

H. DIFFUSER MAINTENANCE AND MONITORING REQUIREMENTS

1. Maintenance and Operation Plan

a. BP Products North America shall submit the operation and maintenance plan for the diffuser in Lake Michigan to IDEM's Office of Water Management, Industrial NPDES Permits Section before the diffuser become operational.

2. Biological Survey

a. BP Products North America shall conduct an annual survey of the aquatic life found within a 200 feet radius of the diffuser beginning when the diffuser becomes operational. The results of this survey shall be submitted to IDEM's Office of Water Management, Industrial NPDES Permits Section.

PART II

STANDARD CONDITIONS FOR NPDES PERMITS

A. GENERAL CONDITIONS

1. Duty to Comply

The permittee shall comply with all conditions of this permit in accordance with 327 IAC 5-2-8(1). Any permit noncompliance constitutes a violation of the Clean Water Act, and the Environmental Management Act, and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2. Penalties for Violations of Permit Conditions

Pursuant to IC 13-30-4, a person who violates any provision of this permit, the water pollution control laws; environmental management laws; or a rule or standard adopted by the Water Pollution Control Board is liable for a civil penalty not to exceed twenty-five thousand dollars ($25,000) per day of any violation. Pursuant to IC 13-30-5, a person who obstructs, delays, resists, prevents, or interferes with (1) the department; or (2) the department's personnel or designated agent in the performance of an inspection or investigation commits a class C infraction.

Pursuant to IC 13-30-6, a person who intentionally, knowingly, or recklessly violates any provision of this permit, the water pollution control laws or a rule or standard adopted by the Water Pollution Control Board commits a class D felony punishable by the term of imprisonment established under IC 35-50-2-7(a) (up to one year), and/or by fine of not less than five thousand dollars ($5,000) and not more than fifty thousand dollars ($50,000) per day of violation. A person convicted for a violation committed after a first conviction of such person under this provision is subject to a fine of not more than one hundred thousand ($100,000) per day of violation, or by imprisonment for not more than two (2) years, or both.

3. Duty to Mitigate

Pursuant to 327 IAC 5-2-8(3), the permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

4. Permit Modification, Revocation, and Reissuance, and Termination

In accordance with 327 IAC 5-2-8(4)and 327 IAC 5-2-16(b), this permit may be modified, revoked and reissued, or terminated for cause, including, but not limited to, the following:

a. Violation of any term or condition of this permit;

b. Failure of the permittee to disclose fully all relevant facts or misrepresentation of any relevant facts by the permittee in the application or during the permit issuance process; or

c. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by this permit.

The filing of a request by the permittee for a permit modification, revocation, and reissuance, or termination, or any information specified in Part II.A.5 of this permit does not stay or suspend any permit term or condition.

The permittee shall submit any information that the permittee knows or has reason to believe would constitute cause for modification or revocation and reissuance of the permit at the earliest time such information becomes available, such as plans for physical alterations or additions to the permitted facility that:

(1) could significantly change the nature of, or increase the quantity of, pollutants discharged; or

(2) the commissioner may request to evaluate whether such cause exists.

5. Duty to Provide Information Requested by the Commissioner

Pursuant to 40 CFR 122.41(h), the permittee shall furnish to the Commissioner, within reasonable time, any information which the Commissioner may request to determine compliance with this permit.

Pursuant to 327 IAC 5-1-3, the permittee shall furnish to the Commissioner any reports or data necessary to carry out the provisions of 327 IAC 5 in such a manner as the Commissioner may reasonably prescribe.

6. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a renewal of this permit in accordance with 327 IAC 5-2-8(2). It is the permittee's responsibility to obtain and submit the application. Pursuant to 327 IAC 5-3-2(a)(2), the application must be submitted at least 180 days in advance of the expiration date of this permit. The Commissioner may grant permission to submit an application less than 180 days in advance of the expiration date of this permit but no later than the permit expiration date.

7. Permit Transfer

In accordance with 327 IAC 5-2-6(c), this permit may be transferred to another person by the permit, without modification or revocation and reissuance being required under 327 IAC 5-2-16(c)(1) or 16(e)(4), if the following occurs:

a. The current permittee notified the commissioner at least thirty (30) days in advanced of the proposed transfer date.

b. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current permittee and the transferee (including acknowledgement that the existing permittee is liable for violations up to the date, and that the transferee is liable for violations from that date on) is submitted to the commissioner.

c. The transferee certifies in writing to the commissioner their intent to operate the facility without making such material and substantial alterations or additions to the facility as would significantly change the nature or quantities of pollutants discharged and thus constitute cause for permit modification under 327 IAC 5-2-16(d). However, the commissioner may allow a temporary transfer of the permit without the permit modification for good cause, e.g., to enable the transferee to purge and empty the facility's treatment system prior to making alterations, despite the transferee's intent to make such material and substantial alterations or additions to the facility.

d. The commissioner, within thirty (30) days, does not notify the current permittee and the transferee of the intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

The Commissioner may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

8. Toxic Pollutants

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant injurious to human health and that standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition in accordance with 327 IAC 5-2-8(5). Effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants injurious to human health are effective and must be compiled with, if applicable to the permittee, within the time provided in the implementing regulations, even absent permit modification.

9. Operator Certification

The permittee shall have the wastewater treatment facilities under supervision of an operator certified by the Commissioner as required by IC 13-18-11 and 327 IAC 5-22.

10. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 of the Clean Water Act.

11. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal actions or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any application state law or regulation under authority preserved by Section 510 of the Clean Water Act.

12. Property Rights

Pursuant to 327 IAC 5-2-8(6) and 327 IAC 5-2-5(b), the issuance of this permit does not convey any property right of any sort or any exclusive privileges, nor does it authorize any injury to persons or private property or an invasion of rights, any infringement of federal, state, or local laws or regulations. The issuance of the permit also does not preempt any duty to obtain any other state, or local assent required by law for the discharge or for the construction or operation of the facility from which a discharge is made.

13. Severability

In accordance with 327 IAC 1-1-3, the provisions of this permit are severable and, if any provision of this permit or the application of any provision of this permit to any person or circumstances is held invalid, the application or such provision to other circumstances and the remainder of this permit shall not be affected thereby if such provisions can be given effect without the invalid provision or application.

14. Inspection and Entry

Pursuant to 327 IAC 5-2-8(7), the permittee shall allow the Commissioner, or an authorized representative (including an authorized contractor acting as a representative of the commissioner), upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the permittee's premises where a point source is located, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect, at reasonable times:

(1) any monitoring equipment or method;

(2) any collection, treatment, pollution management, or discharge facilities; or

(3) practices required or otherwise regulated under the permit.

d. Sample or monitor at reasonable time, any discharge of pollutants or internal wastestream (where necessary to ascertain the nature of a discharge of pollutants) for the purpose of evaluating compliance with this permit or as otherwise authorized.

15. Construction Permit

In accordance with IC 13-14-8-11.6, a discharger is not required to obtain a state permit for the modification or construction of a water pollution treatment or control facility if the discharger has an effective NPDES permit.

If the discharger modifies their existing water pollution treatment or control facility or constructs a new water pollution treatment or control facility for the treatment or control of any new influent pollutant or increased levels of any existing pollutant, then, within thirty (30) days after commencement of operation, the discharger shall file with the Department of Environment Management a notice of installation for the additional pollutant control equipment and a design summary of any modifications.

The notice and design summary shall be sent to the Office of Water Quality - Mail Code 65-42, Industrial NPDES Permits Section, 100 North Senate Avenue, Indianapolis, IN 46204-2251.

16. New or Increased Discharge of Pollutants

This permit prohibits the permittee from undertaking any action that would result in a new or increased discharge of a bioaccumulative chemical of concern (BCC) or a new or increased permit limit for a pollutant parameter that is not a BCC into Lake George Channel of the Indiana Harbor Ship Canal unless one of the following is completed prior to the commencement of the action:

a. Information is submitted to the Commissioner demonstrating that the proposed new or increased discharge will not cause a significant lowering of water quality as defined under 327 IAC 5-2-11.3(b)(1). Upon review of this information, the Commissioner may request additional information or may determine that the proposed increase is a significant lowering of water quality and require the submittal of an antidegradation demonstration.

b. An antidegradation demonstration is submitted to and approved by the Commissioner in accordance with 327 IAC 5-2-11.3(b)(3) and (4).

17. New or Increased Discharge of Pollutants into Lake Michigan

This permit prohibits the permittee from undertaking any deliberate action that would result in degradation of the water quality in Lake Michigan. The permittee shall notify the Commissioner if there is any increase in the loading of a bioaccumulative chemical of concern (BCC), above normal variability, attributable to a deliberate action unless the increased discharge of the BBC qualifies under one of the exceptions under 327 IAC 5-2-11.7(b) or (c).

B. MANAGEMENT REQUIREMENTS

1. Proper Operation and Maintenance

The permittee shall at all times maintain in good working order and efficiently operate all facilities and systems (and related appurtenances) for the collection and treatment which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of this permit in accordance with 327 IAC 5-2-8(8).

2. Bypass of Treatment Facilities

Pursuant to 327 IAC 5-2-8(11):

a. Terms as defined in 327 IAC 5-2-8(11)(A):

(1) "Bypass" means the intentional diversion of a waste stream from any portion of a treatment facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. The permittee may allow a bypass to occur that does not exceed any effluent limitations contained in this permit, but only if it is essential maintenance to assure efficient operation. The permittee is not required to notify the Commissioner about bypasses that

meet this definition. This provision will be strictly construed. These bypasses are not subject to the provisions of Part II.B.2.d and e of this permit.

c. Bypasses, as defined in (a) above, are prohibited, and the Commissioner may take enforcement action against a permittee for bypass, unless the following occur:

(1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, as defined above;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part II.B.2.e; or

(4) The condition under Part II.B.2.b above is met.

d. Bypasses that result in death or acute injury or illness to animals or humans must be reported in accordance with the "Spill Response and Reporting Requirements" in 327 IAC 2-6.1.

e. The permittee must provide the Commissioner with the following notice:

(1) If the permittee knows or should have known in advance of the need for a bypass (anticipated bypass), it shall submit prior written notice. If possible, such notice shall be provided at least ten (10) days before the date of the bypass for approval by the Commissioner.

(2) The permittee shall orally report an unanticipated bypass that exceeds any limitations in the permit within 24 hours of becoming aware of the bypass noncompliance. The permittee must also provide a written report within five (5) days of the time the permittee becomes aware of the bypass event. The written report must contain a description of the

noncompliance and its cause; the period of noncompliance, including exact dates and times; if the cause of noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the bypass event.

f. The Commissioner may approve an anticipated bypass, after considering its adverse effects, if the Commissioner determines that it will meet the conditions listed above in Part II.B.2.c. The Commissioner may impose any conditions determined to be necessary to minimize any adverse effects.

3. Upset Conditions

Pursuant to 327 IAC 5-2-8(12):

a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Paragraph c of this section, are met.

c. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, that:

(1) An upset occurred and the permittee has identified the specific cause(s) of the upset, if possible;

(2) The permitted facility was at the time being operated in compliance with proper operation and maintenance procedures; and

(3) The permittee complied with any remedial measures required under Part II.A.3;

(4) The permittee submitted notice of the upset as required in the "Twenty-Four Hour Reporting Requirements," Part II.C.3, or 327 IAC 2-6.1, whichever is applicable.

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State and to be in compliance with all Indiana statutes and regulations relative to liquid and/or solid waste disposal.

C. REPORTING REQUIREMENTS

1. Planned Changes in Facility or Discharge

Pursuant to 327 IAC 5-2-8(10)(F), the permittee shall give notice to the Commissioner as soon as possible of any planned alterations or additions to the facility. In this context, permit facility refers to a point source discharge, not a wastewater treatment facility. Notice is required only when either of the following applies:

a. The alteration or addition may meet one of the criteria for determining whether the facility is a new source as outlined in 327 IAC 5-1.5.

b. The alteration or addition could significantly change the nature of, or increase the quantity of, pollutants discharge. This notification applies to pollutants that are subject either to effluent limitations in Part I.A. or to notification requirements in Part II.C.9. of this permit.

Following such notice, the permit may be modified to revise existing pollutant limitations and/or to specify and limit any pollutants not previously limited.

2. Monitoring Reports

Pursuant to 327 IAC 5-2-8(9)and 327 IAC 5-2-13 through 15, monitoring results shall be reported at the intervals and in the form specified in "Discharge Monitoring Reports", Part I.C.2.

3. Twenty-Four Hour Reporting Requirements

Pursuant to 327 IAC 5-2-8(10)(C), the permittee shall orally report to the Commissioner information on the following types of noncompliance within 24 hours from the time permittee becomes aware of such noncompliance. If the noncompliance meets the requirements of item b (Part II.C.3.b) or 327 IAC 2-6.1, then the report shall be made within those prescribed time frames.

a. Any unanticipated bypass which exceeds any effluent limitation in the permit;

b. Any noncompliance which may pose a significant danger to human health or the environment. Reports under this item shall be made as soon as the permittee becomes aware of the non-complying circumstances;

c. Any upset that causes an exceedance of any effluent limitation in the permit;

d. Violation of a maximum daily discharge limitation for any of the following toxic pollutants: Ammonia as N, Sulfide, Total Chromium and Hexavalent Chromium.

The permittee can make the oral reports by calling (317)232-8670 during regular business hours or by calling (317) 233-7745 ((888)233-7745 toll free in Indiana) during non-business hours. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce and eliminate the noncompliance and prevent its recurrence. The Commissioner may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. Alternatively the permittee may submit a "Bypass Fax Report" or a "Noncompliance Notification Report", whichever is appropriate, to IDEM at (317) 232-8637. If a complete fax submittal is sent within 24 hours of the time that the permittee became aware of the occurrence, then the fax report will satisfy both the oral and written reporting requirements.

4. Other Noncompliance

Pursuant to 327 IAC 5-2-8(10)(D), the permittee shall report any instance of noncompliance not reported under the "Twenty-Four Hour Reporting

Requirements" in Part II.C.3, or any compliance schedules at the time the pertinent Discharge Monitoring Report is submitted. The report shall contain the information specified in the compliance schedule.

5. Other Information

Pursuant to 327 IAC 5-2-8(10)(E), where the permittee becomes aware of a failure to submit any relevant facts or submitted incorrect information in a permit application or in any report, the permittee shall promptly submit such facts or corrected information to the Commissioner.

6. Signatory Requirements

Pursuant to 327 IAC 5-2-22 and 327 IAC 5-2-8(14):

a. All reports required by the permit and other information requested by the Commissioner shall be signed and certified by a person described below or by a duly authorized representative of that person:

(1) For a corporation: by a responsible corporate officer defined as a president, secretary, treasurer, any vice-president of the corporation in charge of a principal business function, or any other person who performs similar policymaking or decision making functions for the corporation or the manager of one or more manufacturing, production or operating facilities employing more than two hundred fifty (250) persons or having the gross annual sales or expenditures exceeding twenty-five million dollars ($25,000,000) (in second quarter 1980 dollars), if authority to sign documents has been assigned to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a Federal, State, or local government body or any agency or political subdivision thereof: by either a principal executive officer or ranking elected official.

b. A person is duly authorized representative only if:

(1) The authorization is made in writing by a person described above.

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or a position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(3) The authorization is submitted to the Commissioner.

c. Certification. Any person signing a document identified under Part II.C.7., shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering in the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

7. Availability of Reports

Except for data determined to be confidential under 327 IAC 12.1, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Indiana Department of Environmental Management and the Regional Administrator. As required by the Clean Water Act, permit applications, permits, and effluent data shall not be considered confidential.

8. Penalties for Falsification of Reports

IC 13-30 and 327 IAC 5-2-8(14) provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance, shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 180 days per violation, or by both.

9. Changes in Discharge of Toxic Substances

Pursuant to 327 IAC 5-2-9, the permittee shall notify the Commissioner as soon as it knows or has reason to believe:

a. That any activity has occurred or will occur which would result in the discharge of any pollutant identified as toxic, pursuant to Section 307(a) of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels."

(1) One hundred micrograms per liter (100µg/l);

(2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500µg/l) for 2,4-dinitrophenol and 2-methyl-4,6-dinitophenol; and one milligram per liter (1mg/l) for antimony;

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).

b. That it has begun or expects to begin to use or manufacture, as an intermediate or final product or byproduct, any toxic pollutant which was not reported in the permit application under 40 CFR 122.21(g)(9).

PART III
Additional Requirements

A. Thermal Effluent Requirements

Based on a favorable joint 316(a) thermal demonstration study submitted by Union Carbide and the permittee, thermal effluent limitations were suspended for this discharge in June of 1975. This variance renewal shall be valid as long as there is no significant increase in the thermal discharge or heat rejection rate from this facility.

Section 316(a) of the Federal Clean Water Act provides variances from thermal water quality criteria. Alternate thermal permit conditions have been included in the permit renewal based on the past demonstration. In accordance with 327 IAC 5-7 and Subpart H of 40 CFR 125 the IDEM is requiring the permittee to submit a new 316(a) variance request with the renewal application for the next NPDES permit. To assure the protection and propagation of a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water, the permittee must follow the schedule listed below:

1. Within six months of notification by IDEM, the permittee must complete its draft 316(a) study plan and submit it to the IDEM Office of Water Quality for review and approval. IDEM will provide a form and directions for completion of the required study plan at the time of notification.

2. The IDEM must approve the draft 316(a) study plan before the permittee conducts its 316(a) study. IDEM's action to approve or disapprove the study plan is subject to appeal which must be filed under procedures outlined in IC 4-21.5.

3. The permittee must submit its 316(a) demonstration/variance application in conjunction with their NPDES permit renewal application one hundred eighty (180) days prior to date the permit expires. If the draft 316(a) study plan has not been approved by IDEM within thirty (30) months of the effective date of this permit, the permittee shall submit any 316(a) demonstration/variance application twenty-four (24) months subsequent to IDEM approval of the study plan. The permittee may base its 316(a) demonstration upon the absence of prior appreciable harm in lieu of predictive studies in accordance with 327 IAC 5-7-4(c)(1).

B. Intake Structures

The 316(b) study for this facility was approved by the U.S. EPA in June of 1975. This approval is considered valid and effective and shall remain in effect until significant changes are made to the intake structure or until new federal

regulations which regulate the intake structure at this facility require a new evaluation of this approval.

C. Intake Water Interruption

In the event that the intake water supply is interrupted and to prevent equipment damage or plant shutdown, firewater or recycle (treated process) water may be substituted for non-contact cooling purposes until the cause of the interruption can be expeditiously corrected. The permittee shall notify the IDEM, Office of Water Quality, Compliance Evaluation Section upon such occurrence and its expected duration.

Fact Sheet
March, 2007

BP Products North America Inc.
Whiting Refinery
2815 Indianapolis, Blvd.
Whiting, Indiana 46394
Lake County

A. Introduction

BP Products North America Inc., Whiting Refinery has applied for the renewal of National Pollutant Discharge Elimination System (NPDES) Permit No. IN0000108. This permit regulates the discharge of process wastewater, storm water and non-contact cooling water from Outfalls 001, 002 and 005 at the Whiting, Indiana facility to Lake Michigan and the discharge of storm water through Outfalls 003 and 004 into the Lake George Branch of the Indiana Harbor Ship Canal. The current NPDES permit was issued on March 5, 1990 and expired on February 28, 1995. It is administratively extended due to the submittal of a timely renewal application in accordance with 327 IAC 5-2.

BP Products North America Inc., Whiting Refinery has notified IDEM of their plans to modify the refinery in order to process heavy oil from Canada known as Canadian Extra Heavy Crude Oil (CXHO). The refinery will be modified during the term of this permit.

A five (5) year permit is proposed in accordance with 327 IAC 5-2-6(a).

B. Facility Description

BP Products North America Inc. owns and operates a petroleum refinery located on approximately 1,700 acres in Whiting, East Chicago and Hammond, Indiana near the southern tip of Lake Michigan. The refinery employs approximately 1,300 people and produces a variety of products including gasoline of all grades, diesel fuel, heating fuel, jet fuel, asphalt and coke. The refinery can process up to 420,000 barrels of crude oil per day.

C. Receiving Water, Use Classification and Alternate Mixing Zone

1. Receiving Waters:

   Lake Michigan – Lake Michigan is the receiving water for outfalls 001, 002 and 005.

   Lake George Branch of the Indiana Harbor Ship Canal – The Lake George Branch of the Indiana Harbor Ship Canal is the receiving water for Outfalls 003 and 004. The low flow condition of this stream is not relevant since the only discharge to this stream is generated by storm water.

2. Use Classification (327 IAC 2-1.5-19):

Lake Michigan – Lake Michigan is designated as an outstanding state resource water (OSRW) and shall be maintained and protected in its present high quality without degradation in accordance with 327 IAC 2-1.5-4(c). Lake Michigan is also designated for full-body contact recreation and capable of supporting a well-balanced warm water aquatic community. The Indiana portion of the open waters of Lake Michigan is designated as salmonid waters and shall be capable of supporting a salmonid fishery. Lake Michigan is protected by Indiana rules governing water quality standards for the Great Lakes Basin and as such, it is subject to the water quality standards specific to Great Lakes system dischargers as found in 327 IAC 2-1.5, 327 IAC 5-1.5, and 327 IAC 5-2 (see Great Lakes System Discharger Requirements, Section F of the Fact Sheet for more information).

Lake George Branch of the Indiana Harbor Ship Canal – The Lake George Branch of the Indiana Harbor Ship Canal is located within the Great Lakes Basin and is protected by Indiana rules governing water quality standards for the Great Lakes Basin and as such, it is subject to the water quality standards specific to Great Lakes system dischargers as found in 327 IAC 2-1.5, 327 IAC 5-1.5, and 327 IAC 5-2 (see Great Lakes System Discharger Requirements, Section F of the Fact Sheet for more information). The Lake George Branch of the Indiana Harbor Ship Canal is classified as a high quality water that is also a tributary to an OSRW.

3. Alternate Mixing Zone

Under 327 IAC 5-2-11.4(b)(2), except for a zone of initial dilution for acute aquatic criteria, wasteload allocations for discharges to the open waters of Lake Michigan shall be based on meeting water quality criteria in the undiluted discharge unless a mixing zone demonstration is conducted and approved by IDEM under 327 IAC 5-2-11.4(b)(4). If an alternate mixing zone is approved for a discharge to the open waters of Lake Michigan, wasteload allocations shall be based on meeting water quality criteria outside of the applicable alternate mixing zone. Under 327 IAC 5-2-11.4(b)(4)(C), an alternate mixing zone shall not be granted for a discharge into the open waters of Lake Michigan that exceeds the area where discharge-induced mixing occurs.

BP Products submitted an alternate mixing zone demonstration in accordance with 327 IAC 5-2-11.4(b)(4) for a discharge through a submerged diffuser. The demonstration included a site specific study in which the ambient currents at the proposed diffuser location were measured over a 45 day period. Based on the information obtained as part of the site-specific study, BP Products modeled the discharge through the submerged diffuser for sixteen different current directions and the associated average current velocities. They used the U.S. EPA supported mixing zone model CORMIX to determine the dilution that occurs at the edge of the discharge-induced mixing zone.

After reviewing the mixing zone demonstration submitted by BP Products and conducting additional mixing zone modeling using CORMIX, a design case for the diffuser was chosen to calculate the dilution factor under critical conditions. At the

effluent flow of 21.4 MGD, the diffuser will achieve a dilution factor of 37.1:1 at the edge of the discharge-induced mixing zone. The dilution factor is a weighted average that was calculated using the dilution obtained from the CORMIX model for each of the sixteen current directions and the frequency of occurrence of each current direction. The discharge-induced mixing zone will extend a distance of 182 feet from the diffuser and its location will change as the current direction changes. The dilution factor was used in accordance with 327 IAC 5-2-11.4(c) to calculate wasteload allocations for all of the pollutants of concern except for Mercury. A mixing zone for Mercury has not been approved for the BP Products discharge to the open waters of Lake Michigan. The NPDES permit tracking system includes the latitude and longitude associated with each outfall number. Since the location of the discharge is changing by using the diffuser, the outfall number has to be changed to reflect the change in location. The discharge from the diffuser will be designated as Outfall 005.

This alternate mixing zone was evaluated by the Biological Studies Section of the Office of Water Quality of IDEM in accordance with 327 IAC 5-2-11.4(b)(4) to ensure that the mixing zone does not:

1. Interfere with or block passage of fish or aquatic life
2. jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of such species' habitats
3. extend to drinking water intakes
4. impair or otherwise interfere with the designated uses of the receiving water
5. promote undesirable aquatic life or result in a dominance of nuisance species
6. allow substances to settle to form objectionable deposits
7. allow floating debris, oil, scum, and other matter in concentrations that form nuisances
8. allow objectionable color, odor, taste or turbidity, or
9. cause adverse effects to human health, aquatic life or wildlife.

Pursuant to 327 IAC 5-2-11.4(b)(6), the Commissioner has evaluated all available information, including information submitted by the public, relevant to the consideration of harm to human health, aquatic life, or wildlife, and has determined, based on IDEM's evaluation that is part of the agency record for this permit, that the alternate mixing zone will not cause any of the above-noted adverse impacts. Therefore, the Commissioner approves and grants the application of the alternate mixing zone in accordance with 327 IAC 5-2-11.4(b)(4). Further in accordance with IC 13-18-4-7, the Commissioner has determined that the applicant has demonstrated that the alternate mixing zone will not cause harm to human health or aquatic life.

The evaluation by the IDEM, OWQ Biological Studies Section recommends the following:

1. A comprehensive Toxicity Identification Evaluation and Toxicity Reduction Evaluation should be conducted prior to the diffuser being implemented
2. Careful consideration should be made on the support structure for the diffuser head to avoid creating attractive habitat that would draw aquatic life into the mixing zone
3. A monitoring and preventative maintenance program should be developed that prevents damage or failure of the diffuser heads, and

4. A chemical and biological monitoring program should be implemented that demonstrates the ongoing efficacy of the diffuser operation.

The effluent from the process wastewater treatment plant has demonstrated periodic toxicity. However, the mixing zone will mitigate the toxicity through the quick dispersion and mixing of the effluent. Although there is no longer much concern about the toxicity of the effluent after the diffuser becomes operational, the permit will contain a requirement to test the effluent for chronic toxicity prior to the operation of the diffuser and for chronic toxicity after the diffuser becomes operational. Please see the effluent limitations rationale for Whole Effluent Toxicity (WET) for an explanation of the permit requirements for WET.

IDEM does not possess the authority to adjust the construction of the diffuser head support structure due to Indiana Statute IC 13-14-8-11.6. The statute states that a discharger is not required to obtain a state permit for the modification or construction of a water pollution treatment or control facility if the discharger has an effective NPDES permit.

Part II.B.1 of the permit requires the following: The permittee shall at all times maintain in good working order and efficiently operate all facilities and systems (and related appurtenances) for the collection and treatment which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of this permit in accordance with 327 IAC 5-2-8(8). So the concern regarding the development of a monitoring and preventative maintenance that prevents damage or failure of the diffuser heads is not warranted because BP is required to maintain the diffuser by the permit.

The permit contains effluent monitoring and limitations for the pollutants that are expected to be present and for Whole Effluent Toxicity. The maintenance of the diffuser should maintain the efficacy of the diffuser.

Intake Structure and 316 (b) of the Clean Water Act

The 316(b) study for this facility was approved by the U.S. EPA in June of 1975. This approval is considered valid and effective and shall remain in effect until significant changes are made to the intake structure or until new federal regulations which regulate the intake structure at this facility require a new evaluation of this approval. The following re-opening clause is being included in this permit:

This permit may be modified, or, alternately, revoked and reissued, to comply with any applicable standards, regulations and requirements issued or approved under section 316(b) of the Clean Water Act, if the standards, regulations and requirements so issued or approved contains different conditions than those in this permit.

D. Wastewater Sources and Treatment General Overview of Permitted Outfalls

Outfall 001/Outfall 005

BP Whiting discharges a maximum monthly average of 21.4 million gallons per day of treated wastewater from water used in the refinery, recovered ground water and most of the storm water

from the site through their wastewater treatment plant to Outfall 001. The wastewater treatment plant is an advanced biological treatment system which occupies twenty acres and includes a grit chamber, oil/water separators, dissolved air flotation, an activated sludge plant and final filtering processes. BP also accepts and treats wastewater at the wastewater treatment plant from NiSource Whiting Clean Energy and Ineos PIB Unit (formerly BP Chemical Plant). All on-site remediation ground water is sent to the wastewater treatment plant. Off site BP Facilities such as pipelines and terminals may produce wastewater from tank inspections, from hydro testing of equipment, from dewatering operations of equipment for maintenance, or other wastewater produced from normal operations. The BP Products Refinery facility will treat this wastewater and recover any hydrocarbons as needed. When this discharge is routed through the diffuser located in Lake Michigan, the Outfall number will be changed to 005.

Whiting Clean Energy

Whiting Clean Energy supplies BP with steam and electricity. The closed cycle cooling towers operated by Whiting Clean Energy have a blowdown which is sent to the BP wastewater treatment plant (WWTP). This discharge did not result in any increased effluent limits and it is considered to be within the existing capacity of BP's WWTP.

Ineos

The Ineos facility sends wastewater from a polybutene manufacturing/processing unit (PIB unit) to the BP wastewater treatment plant. The PIB unit has sent their wastewater to the BP WWTP for many years and this wastewater was included in previous NPDES permits. When Ineos became an independently owned facility, the BP WWTP had to be evaluated for being a centralized waste treatment facility (CWT). There is an exclusion from being a CWT found in 40 CFR 437.1(3) which states:

"Wastewater from the treatment of wastes received from off-site via conduit from the facility that generates the wastes unless the resulting wastewaters are commingled with other wastewaters subject to this provision." Therefore, as long as the wastewater from the PIB unit continues to be delivered to the BP WWTP via pipeline, this exclusion for off-site wastewater delivered by conduit will apply and the BP WWTP is not subject to the CWT regulations.

Outfall 002

BP Whiting discharges a maximum monthly average of 119.6 million gallons per day of non-contact cooling water to Outfall 002. The 119.6 mgd flow value for Outfall 002 represents the maximum monthly average for Nov 1, 1999 to Oct 31, 2001 and was submitted by BP in the April 2002 NPDES Permit Renewal Application Update. BP submitted an additional NPDES Permit Renewal Application Addendum on Nov 3, 2006 to incorporate the addition of the CXHO refinery configuration and the maximum monthly average Outfall 002 flow was revised to 96.4 mgd (pre-CXHO, based on DMR data from Jan 1, 2002 to Dec 31, 2005) and 81.8 mgd (post-CXHO, based on best engineering judgment).

Outfalls 003 and 004

BP Whiting discharges storm water to Outfalls 003 and 004 using a manually controlled valve. When the level of water in the ditch is high, the water is released to the canal. The storm water

is managed through the use of a Spill Prevention, Control and Countermeasure Plan, a Facility Response Plan, and Agreed Order No. H-11187 which defined eight interim measures to be implemented at the J & L site in which Outfalls 003 and 004 are located.

E. Great Lakes System Discharger Requirements

The facility discharges to a water body that has been identified as a water of the state within the Great Lakes system. As such, it is subject to the water quality standards specific to Great Lakes system dischargers as found in 327 IAC 1-1.5, 327 IAC 5-1.5, and 327 IAC 5-2. These rules, effective as of February 13, 1997, prohibit any action resulting in a significant lowering of water quality unless an antidegradation demonstration has been completed by the permittee and approved by the agency. BP Products North America, inc., Whiting Refinery has not increased their production capability since the previous permit was issued. Two new substances, that were not limited in the previous permit, are subject to water quality-based effluent limits and are being limited in this permit due to new analytical methods for Mercury and due to new water quality criteria for Vanadium.

F. Federal Effluent Guideline Requirements

The facility is designated as a major NPDES permitted facility with a SIC code of 2911-Petroleum Refining. The facility is subject to the Water Quality Based Effluent Limitations contained in 327 IAC 2 and 327 IAC 5, and it is subject to the Federal Effluent Guideline in 40 CFR 419. Therefore review and approval of the final permit by the US EPA Region 5 will be required.

According to 40 CFR 122.44 and 327 IAC 5, NPDES permit limits are based on either technology-based limitations, where applicable, best professional judgment (BPJ), or Indiana Water Quality-Based Effluent Limitations (WQBEL's), whichever is most stringent. The decision to limit or monitor the parameters contained in this permit is based on information contained in the permittee's NPDES application, the previous permit, and additional research conducted pursuant to the development of this permit.

- EPA Effluent Guidelines -- Existing Source Standards (BAT/BPT)

The U.S. EPA has established technology-based effluent guidelines for petroleum refining facilities. Since this facility is classified as an "existing point source", all discharges are subject to effluent guidelines identified in 40 CFR 419. The applicable effluent guidelines are as follows on the next three pages:

Outfall 005

Effluent Limitations based on the Federal Effluent Guidelines (40 CFR Part 419) for the CXHO Configuration

EPA Process Name	Process Rate 1000 Bbl/day	Weighting Factor	Process Rate/ Feedstock Rate	Unit Process Configuration Factor
Crude Processes				
Atmospheric Crude Distil.	420.0		1	
Crude Desalting	420.0		1	
Vacuum Crude Distillation	240.3		0.572	
Sum	1080.3	1	2.572	2.572
Cracking and Coking Processes				
Fluid Catalytic Cracking	172.0		0.410	
Delayed Coking	102.0		0.243	
Hydroprocessing	441.3		1.051	
Sum	715.3	6	1.703	10.219
Asphalt Processes				
Asphalt Production	33.9			
Sum	33.9	12	0.081	0.969
Reforming and Alkylation Processes				
Sulfuric Acid Alkylation	29.0			
Catalytic Reforming	70.0			
Sum	99.0			
feedstock rate (1,000 Bbl/day)		420.0	**Total**	13.76

Weighting Factor based on the table in 40 CFR 419.42(b)(3)

Size Factor:

Based on the table in 40 CFR 419.22(b)(1), 419.24(b)(1) = 1,000 BBL of Feedstock per stream day (150.0 or greater), Size Factor = 1.41

Based on the table in 40 CFR 419.22(b)(2), 419.24 (b)(2) = Process Configuration Factor 9.5 or Greater, Process Factor = 1.89
Effluent Limits based on 40 CFR 419.23(c)(1)(i)

Based on 40 CFR 419.23(c)(1)(i) using the CXHO Configuration

Pollutant	Processes Included	Daily Maximum (lbs./1,000 Bbl of Feedstock)	Monthly Average (lbs./1,000 Bbl of Feedstock)	Feedstock Rate (1,000 Bbl of Feedstock)	Effluent Daily Maximum (lbs/day)	Limits Monthly Average (lbs/day)
Phenolic Compounds	Crude	0.013	0.003	1.080.3	14.04	3.24
	Cracking & Coking	0.147	0.036	715.3	105.15	25.75
	Asphalt	0.079	0.019	33.9	2.68	0.64
	Reforming & Alkylation	0.132	0.032	99	13.07	3.17
	Total				134.94	32.8
Total Chromium	Crude	0.011	0.004	1.080.3	11.88	4.32
	Cracking & Coking	0.119	0.041	715.3	85.12	29.33
	Asphalt	0.064	0.022	33.9	2.17	0.75
	Reforming & Alkylation	0.107	0.037	99	10.59	3.66
	Total				109.77	38.06
Hexavalent Chromium	Crude	0.0007	0.0003	1.080.3	0.76	0.32
	Cracking & Coking	0.0076	0.0034	715.3	5.44	2.43
	Asphalt	0.0041	0.0019	33.9	0.14	0.06
	Reforming & Alkylation	0.0069	0.0031	99	0.68	0.31
	Total				7.01	3.13

Calculation of BPT, BAT and BCT Limitations using the CXHO Configuration
(a) Based on 40 CFR 419.22(a) and 419.24(a); (b) Based on 40 CFR 419.23(c)(1)(i)

Pollutant	Type of Effluent Limitation (a)	Daily Maximum Lbs/1,000 Bbl of Feedstock	Monthly Average Lbs/1,000 Bbl of Feedstock	Size Factor	Process Factor	Feedstock Rate 1,000 Bbl of Feedstock	Effluent Limitations BPT, BAT & BCT Daily Maximum Lbs/day	Effluent Limitations BPT, BAT & BCT Monthly Average Lbs/day	Other BAT Limits (b) Daily Maximum Lbs/day	Other BAT Limits (b) Monthly Average Lbs/day	Controlling Effluent Limitations Daily Maximum Lbs/day	Controlling Effluent Limitations Monthly Average Lbs/day
BOD5	BPT, BCT	**9.9**	5.5	**1.41**	1.89	420.0	11,080.65	6,155.92			11,081	6,156
TSS	BPT, BCT	**6.9**	4.4	**1.41**	1.89	420.0	7,722.88	4,924.74			7,723	4,925
COD	BPT, BAT	**74**	38.4	**1.41**	1.89	420.0	82,825.09	42,979.51			82,825	42,980
Oil and Grease	BPT, BCT	**3**	1.6	**1.41**	1.89	420.0	3,357.77	1,790.81			3,358	1,791
Phenolic Compounds	BPT	**0.074**	0.036	**1.41**	1.89	420.0	82.83	40.29	134.94	32.8	82.8	32.8
Ammonia as N	BPT, BAT	**6.6**	3	**1.41**	1.89	420.0	7,387.1	3,357.77			7,387	3,358
Sulfide	BPT, BAT	**0.065**	0.029	**1.41**	1.89	420.0	72.75	32.46			72.8	32.5
Total Chromium	BPT	**0.15**	0.088	**1.41**	1.89	420.0	167.89	98.49	109.77	38.06	109.8	38.1
Hex. Chromium	BPT	**0.012**	0.0056	**1.41**	1.89	420.0	13.43	6.27	7.01	3.13	7.01	3.13

- Indiana Water Quality Based Effluent Limits (WQBELs)

The water quality-based effluent limitations for this facility are based on water quality criteria in 327 IAC 2-1.5-8 or under the procedures described in 327 IAC 2-1.5 and implementation procedures in 327 IAC 5. Limitations and/or monitoring are required for parameters identified by applications of the reasonable potential to exceed WQBEL under 327 IAC 5-2-11.4 through 327 IAC 5-2-11.7.

- Narrative Water Quality Based Limits

The narrative water quality criteria contained in 327 IAC 2-1.5-8 have been included in this permit to ensure that the narrative water quality criteria are met.

- Numeric Water Quality Based Limits

The numeric water quality criteria and values contained in this permit have been calculated using the tables of water quality criteria under 327 IAC 2-1.5-8 and calculated in accordance with 327 IAC 2-1.5-12.

G. Effluent Limitations, Sampling, and Monitoring Requirements

Outfall 001without an Alternate Mixing Zone

DISCHARGE LIMITATIONS
TABLE I
Numeric Discharge Limitations, Sampling, and Monitoring Requirements

	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
Parameter	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Flow	Report	Report	MGD	----	----	----	Daily	24-Hr. Total
$TBOD_5$	4,161	8,164	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
TSS	3,646	5,694	lbs/day	Report	Report	mg/l	2 x Weekly	24 Hr. Comp.
COD	30,323	58,427	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Oil and Grease	1,368	2,600	lbs/day	Report	Report	mg/l	1 x Weekly	Grab
Ammonia as N								
Interim	1,030	2,060	lbs/day	Report	Report	mg/l	5 x Weekly	24 Hr. Comp.
Final	88	196	lbs/day	0.49	1.1	mg/l	5 x Weekly	24 Hr. Comp.
Benzo(a)pyrene								
Interim	Report	Report	lbs/day	Report	Report	ng/l	1 x Monthly	24 Hr. Comp.
Final	0.017	0.041	lbs/day	96	230	ng/l	1 x Weekly	24 Hr. Comp.
Chloride								
Interim	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	33,575	67,508	lbs/day	188	378	mg/l	1 x Weekly	24 Hr. Comp.
Total Chromium								
Interim	23.9	68.53	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Final	18	37	lbs/day	0.1	0.2	mg/l	1 x Weekly	24 Hr. Comp.
Hex. Chromium								
Interim	2.01	4.48	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Final	1.6	3.2	lbs/day	0.009	0.018	mg/l	1 x Weekly	24 Hr. Comp.
Total Copper								
Interim	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	1.8	3.6	lbs/day	0.01	0.02	mg/l	1 x Weekly	24 Hr. Comp.
Total Dissolved Solids								
Interim	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	109,655	220,025	lbs/day	614.0	1,232.0	mg/l	1 x Weekly	24 Hr. Comp.
Fluoride								
Interim	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	146	286	lbs/day	0.82	1.6	mg/l	1 x Weekly	24 Hr. Comp.
Total Lead								
Interim	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	1.4	2.9	lbs/day	0.0081	0.016	mg/l	1 x Weekly	24 Hr. Comp.
Total Mercury								
Interim	Report	Report	lbs/day	Report	Report	ng/l	2 x Yearly	Grab
Final	0.00023	0.00057	lbs/day	1.3	3.2	ng/l	6 x Yearly	Grab
Phenolics (4AAP)	20.33	73.01	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Phosphorus	Report	Report	lbs/day	Report	1.0	mg/l	1 x Weekly	24 Hr. Comp.
Total Selenium								
Interim	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	0.73	1.5	lbs/day	0.0041	0.0082	mg/l	1 x Weekly	24 Hr. Comp.

Parameter	Quantity or Loading Monthly Average	Quantity or Loading Daily Maximum	Units	Quality or Concentration Monthly Average	Quality or Concentration Daily Maximum	Units	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
Total Strontium								
Interim	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	125	250	lbs/day	0.7	1.4	mg/l	1 x Weekly	24 Hr. Comp.
Sulfate								
Interim	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	36,611	73,401	lbs/day	205.0	411.0	mg/l	1 x Weekly	24 Hr. Comp.
Sulfide	23.1	51.4	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Total Vanadium								
Interim	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24-Hr. Comp
Final	1.8	3.6	lbs/day	0.0098	0.02	mg/l	1 x Weekly	24 Hr. Comp.
Whole Effluent Toxicity								
Interim								
Acute	-	-	-	-	Report	TUa	2 x Yearly	
Chronic	-	-	-	Report	-	TUc	2 x Yearly	
Final								
Acute	-	-	-	-	1.0	TUa	2 x Yearly	
Chronic	-	-	-	1.0	-	TUc	2 x Yearly	
pH	-	-	-	-	[1]	s.u.	3 x Weekly	Grab

[1] The pH of the effluent shall be no less than 6.0 and no greater than 9.0 standard units (s.u.).

The interim and final effluent limitations and monitoring requirements for Outfall 001 are based on not having an alternate mixing zone. These requirements are being placed in the permit to ensure that all possible discharge scenarios are covered. BP Products North America intends to install a high rate diffuser for Outfall 001 in order to create an alternate mixing zone in Lake Michigan in accordance with 327 IAC 5-2-11.4(b).

Flow

This parameter is required of all NPDES permits and is included in this permit in accordance with 327 IAC 5-2-13(a)(2).

BOD_5, TSS, COD, Oil and Grease, Sulfide and Phenolics (4AAP)

The effluent limitations for the above noted parameters have been retained from the previous permit in accordance with 327 IAC 5-2-10(11) commonly referred to as anti-backsliding. These pollutants do not have water quality criterion and therefore, they do not have water quality based effluent limits (WQBELs).

Ammonia as N, Total Chromium and Hex. Chromium

The interim effluent limitations for the above noted parameters are based on the federal effluent guidelines for Petroleum Refining Point Source Category (40 CFR Part 419) except for ammonia. The interim limits for ammonia were established when permit No. IN0000108 was reissued on Dec 22, 1975 (see Appendix I in November 30, 2006 BP Case-By-Case Antidegradation Analysis). The final effluent limitations for Total Chromium, Hexavalent Chromium and Ammonia are based on Indiana water quality criterion.

Benzo(a)pyrene, Chloride, Copper, Total Dissolved Solids, Fluoride, Lead, Mercury, Selenium, Strontium, Sulfate and Vanadium

These pollutants have been found in the effluent in quantities that show a reasonable potential to exceed water quality standards based on the procedures found in 327 IAC 5-2-11.5. Therefore, the permit will include final effluent limitations for these pollutants that will become effective at the end of a three year schedule of compliance. During the interim period, they will be sampled in the effluent on a monthly basis except for Mercury which will be monitored on a semi-annual basis. If these effluent limits become final limits, the monitoring frequency shall be increased to once each week except for Mercury which will be monitored once every two months. BP is being given three months from the effective date of the permit to begin monitoring for these parameters.

Schedule of Compliance

BP is being given a schedule of compliance to either install the diffuser to create an alternate mixing zone with effluent limits based on the alternate mixing zone or to install the treatment system necessary to achieve compliance with the final effluent limitations for Ammonia as N, Benzo A Pyrene, Chloride, Total Chromium, Hex. Chromium, Total Copper, TDS, Fluoride, Total Lead, Total Selenium, Strontium, Sulfate and Whole Effluent Toxicity at Outfall 001 based on water quality standards calculated without a mixing zone. BP is being given three years to install either the diffuser or additional treatment.

Fecal Coliform

Fecal Coliform will not be limited and monitored at this outfall because all of the sanitary wastewater is now sent to the City of Whiting for treatment.

Phosphorus

Phosphorus is added to the wastewater treatment plant as a micro-nutrient. BP has demonstrated that they can consistently achieve a concentration below 1 mg/l and a removal efficiency that averages 79%. The ability to accurately measure the percent removal efficiency is severely limited, so the requirement to measure the percent removal is being waived. The effluent shall be limited to a daily maximum concentration of 1 mg/l. The effluent limitation of 1.0 mg/l for Phosphorus represents the Best Available Treatment based on the Best Professional Judgment of IDEM in accordance with 327 IAC 5-5-2.

Total Residual Chlorine

Total Residual Chlorine will not be limited and monitored at this outfall because all of the sanitary wastewater is now sent to the City of Whiting. Chlorine will not be added to disinfect the discharge

Whole Effluent Toxicity (WET)

BP Products conducted several acute and chronic WET tests to provide data for the renewal of their NPDES permit. There is a RPE for acute and chronic WET when there is not an approved alternate mixing zone. BP is required to continue to monitor the

effluent from Outfall 001 for Acute and Chronic Toxicity until the diffuser is operational and then BP will only be required to monitor the effluent from Outfall 005 for chronic toxicity. After the alternate mixing zone has become operational, if chronic toxicity is observed by having more than 38 Toxic Units Chronic, the toxicity reduction evaluation will be initiated to determine the cause of the toxicity and to reduce or eliminate the source of the toxicity.

pH

This parameter is required of all NPDES permits and is included in this permit in accordance with 327 IAC 2-1.5-8(c)(2). pH must be maintained between 6 to 9 standard units. The effluent shall be sampled 3 x weekly using a grab sample.

Outfall 005 (formerly Outfall 001) with an Alternate Mixing Zone

DISCHARGE LIMITATIONS
TABLE I
Numeric Discharge Limitations, Sampling, and Monitoring Requirements

	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
Parameter	Monthly Average	Daily Maximum	Units	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Flow	Report	Report	MGD	----	----	----	Daily	24-Hr. Total
$TBOD_5$	4,161	8,164	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
TSS	4,925	7,723	lbs/day	Report	Report	mg/l	2 x Weekly	24 Hr. Comp.
COD	30,323	58,427	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Oil and Grease	1,368	2,600	lbs/day	Report	Report	mg/l	1 x Weekly	Grab
Phenolics (4AAP)	20.33	73.01	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Ammonia as N	1,584	3,572	lbs/day	Report	Report	mg/l	5 x Weekly	24 Hr. Comp.
Sulfide	23.1	51.4	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Total Chromium	23.9	68.53	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Hex. Chromium	2.01	4.48	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Total Vanadium								
Interim	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24-Hr. Comp
Final	50	100	lbs/day	0.28	0.56	mg/l	1 x Monthly	24-Hr. Comp
Total Mercury								
Interim	Report	Report	lbs/day	Report	Report	ng/l	2 x Yearly	Grab
Final	0.00023	0.00057	lbs/day	1.3	3.2	ng/l	6 x Yearly	Grab
Phosphorus	Report	Report	lbs/day	Report	1.0	mg/l	1 x Weekly	24 Hr. Comp.
Whole Effluent Toxicity								
Chronic	-	-	-	Report	-	TUc	2 x Yearly	
pH	-	-	-	-	[1]	s.u.	3 x Weekly	Grab

[1] The pH of the effluent shall be no less than 6.0 and no greater than 9.0 standard units (s.u.).

Flow

This parameter is required of all NPDES permits and is included in this permit in accordance with 327 IAC 5-2-13(a)(2).

BOD_5, COD, Oil and Grease, Phenolics (4AAP), Total Chromium, Hex. Chromium and Sulfide

The Loading effluent limitations for the above noted parameters have been retained from the previous permit in accordance with 327 IAC 5-2-10(11) commonly referred to as anti-backsliding. BP North America has indicated that it is not necessary to request an increase in the loading effluent limitations for these parameters.

Vanadium and Mercury

Vanadium and Mercury have been found in the effluent in quantities that show a reasonable potential to exceed water quality standards based on the procedures found in 327 IAC 5-2-11.5. Therefore, the permit will include final effluent limitations for these pollutants that will become effective at the end of a five year schedule of compliance. During the interim period, Vanadium will be sampled in the effluent on a monthly basis and Mercury will be monitored on a semi-annual basis. The effluent limitations for Mercury and Vanadium are water quality based effluent limits.

Fecal Coliform

Fecal Coliform will not be limited and monitored at this outfall because all of the sanitary wastewater is now sent to the City of Whiting for treatment.

Phosphorus

Phosphorus is added to the wastewater treatment plant as a micro-nutrient. BP has demonstrated that they can consistently achieve a concentration below 1 mg/l and a removal efficiency that averages an estimated 79%. The ability to accurately measure the percent removal efficiency is severely limited, so the requirement to measure the percent removal is being waived. The effluent shall be limited to a daily maximum concentration of 1 mg/l.

Total Residual Chlorine

Total Residual Chlorine will not be limited and monitored at this outfall because all of the sanitary wastewater is now sent to the City of Whiting. Chlorine will not be added to the discharge to disinfect the discharge.

Whole Effluent Toxicity

There is not a calculated RPE for WET when there is an alternate mixing zone. BP is required to continue to monitor the effluent from Outfall 001 for Chronic Toxicity. If chronic toxicity is observed by having more than 38 Toxic Units Chronic, then a toxicity reduction evaluation (TRE) will be initiated to determine the cause of the toxicity and to reduce or eliminate the source of the toxicity.

pH

This parameter is required of all NPDES permits and is included in this permit in accordance with 327 IAC 2-1.5-8(c)(2). pH must be maintained between 6 to 9 standard units. The effluent shall be sampled 3 x weekly using a grab sample.

Antidegradation Evaluation for TSS and Ammonia as N

During the permit development period, BP Products North America requested that the effluent limits for TSS and Ammonia be increased due to material and substantial changes at the refinery. Regardless of the fact that these increases will be allowed by 327 IAC 5-2-10(11) [anti-backsliding] due to substantial changes at the refinery, the increases must be in compliance with 327 IAC 5-2-11.7 (Antidegradation Implementation Procedures for Outstanding State Resource Waters).

The provision of 5-2-11.7 that can be used to allow an increase in the pollutant loading to Lake Michigan in this instance is 5-2-11.7(a)(1)(B)(iv). 5-2-11.7(a)(1)(B)(iv) allows the increase to be calculated on a case-by-case basis when the proposed increase in mass is not a result of an increase in discharge flow. The rules do not provide any guidance for determining the appropriate increase in mass when the increase is not a result of an increase in flow.

IDEM met with representatives of BP North America on October 4, 2006 to discuss how to implement 5-2-11.7(a)(1)(B)(iv). IDEM required BP North America to conduct an Antidegradation Analysis which evaluated the social and economic benefits, alternate wastewater treatment and the expected effluent quality after the refinery is reconfigured to process the CXHO. BP North America must demonstrate that all economically and technically feasible measures have been taken to avoid the action that will result in the new or increased discharge of the pollutant or pollutant parameter including a demonstration that it is not feasible to limit the new or increased discharge to a temporary or short term period. BP North America must demonstrate that any increase in pollutant loading is necessary. The new or increased pollutant loading shall be limited to the minimum necessary to allow the action to occur. The Commissioner has determined that BP has met these requirements, based on the facts described below. As a result, the increased limits requested are consistent with the provisions of 5-2-11.7(a)(1)(B)(iv), and those limits have been incorporated into the permit.

BP North America submitted their Case-by-Case Antidegradation Analysis on November 30, 2006. BP North America concluded that the effluent limits for Total Suspended Solids (TSS) and ammonia as N need to be increased due to significant increases in the influent loading of ammonia and TSS to the wastewater treatment plant. All other pollutant limitations currently in their NPDES permit will remain as they are in the current NPDES permit. IDEM contacted BP North America by phone on December 8, 2006 to provide some feedback on the initial review of the antidegradation analysis submitted on November 30th. IDEM asked BP North America to provide a better explanation of the expected effluent quality for ammonia as N and to state why they had not considered any upgrades to their wastewater treatment plant to enhance its ammonia removal capabilities.

On December 12th, BP North America responded to the request by IDEM to further explain why they could not enhance their wastewater treatment plant to enhance its ammonia removal abilities and to provide a better explanation of the expected effluent quality for ammonia as N by providing an addendum to the Case-by-Case Antidegradation Analysis. BP North America